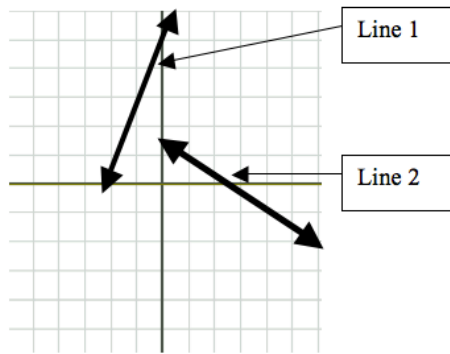
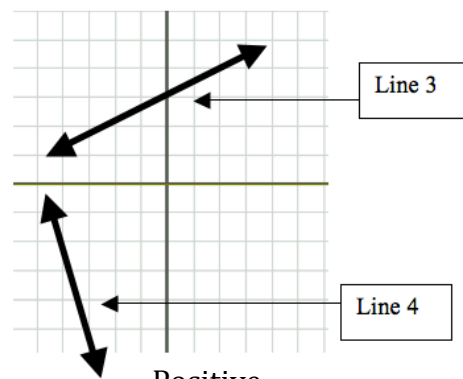


Slope



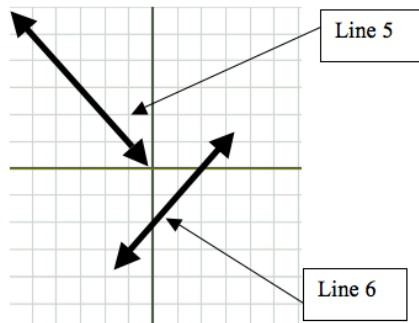
Line 1 Positive

Line 2 Negative



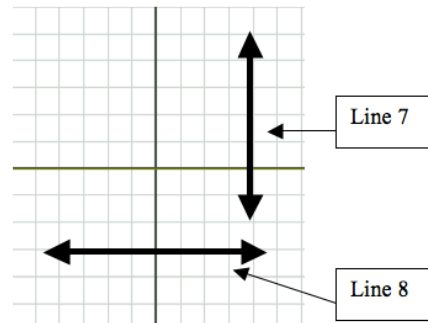
Line 3 Positive

Line 4 Negative



Line 5 Negative

Line 6 Positive



Line 7 Undefined

Line 8 Zero

Slope = Rise/Run OR the change in y values/the change in x values

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Formal Definition:

(1, -4) and (-4, 2).

$x_1 = 1, y_1 = -4, x_2 = -4,$ and $y_2 = 2.$

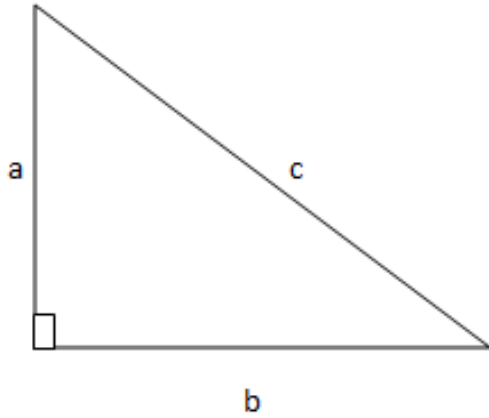
$$\text{slope} = m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - (-4)}{-4 - 1} = \frac{6}{-5} = -\frac{6}{5}$$

Other resources needed to complete this lesson:

Distance Formula:

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Pythagorean Theorem:



$$a^2 + b^2 = c^2$$

- c is the hypotenuse, the longest side
- a and b are the other two sides

